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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,815	07/12/2006	Kuk-hyun Han	Q95632	6267
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WASHINGTON, DC 20037				
EXAMINER				
HANCE, ROBERT J				
ART UNIT		PAPER NUMBER		
2421				
NOTIFICATION DATE		DELIVERY MODE		
09/14/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/585,815

**Applicant(s)**

HAN ET AL.

**Examiner**

ROBERT HANCE

**Art Unit**

2421

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1+ have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4-5, 7-10, 12-13, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al., US Pub No. 2002/0178449 in view of Soundararajan in view of Yuen et al., US Patent No 5,488,409.

**As to claim 1** Yamamoto discloses an apparatus for dynamically managing a user's favorite channels, the apparatus comprising:

a user input unit receiving a channel change input from the user (Fig. 1: 4; [0028]);

a channel list storage unit (Fig. 1: 2; [0032]) storing an entire channel list comprising channels receivable using a tuner (Fig. 2; [0032]): channel map 15 contains all channels receivable) and channel preference information regarding the user's

preference degrees for channels (Fig. 5B; [0043]-[0045] - channel map 22 is used to store user channel preference information regarding which channels are to be skipped);

a control unit calculating a preference degree for a channel selected in response to the channel change input received by the user input unit; and an output unit providing content of the selected channel according to calculation of the control unit, wherein the control unit provides the content of the selected channel through the output unit in response to the channel change input if the calculated preference degree for the selected channel satisfies a predetermined reference ([0048]-[0051] - when a user changes channels up (or down), the next highest (or lowest) channel on the channel map is checked to see if it is on the skip list (i.e., the channel's preference degree is obtained, or calculated, from the channel map). If the channel is on the skip list (i.e. if the preference degree calculation does not satisfy a predetermined reference), it is not tuned, and the next highest (or lowest) channel is then checked. This continues until a channel not on the skip list is found).

Yamamoto fails to disclose movement to a channel that does not satisfy the channel preference degree.

However, in an analogous art, Soundararajan discloses movement to a channel that does not satisfy the channel preference degree ([0040] – different control lists can be moved between).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Yamamoto with the teachings of Soundararajan by enabling users to switch between different sets of lists containing different user

preferences, the rationale being to allow users to have more control over how channels are surfed.

The combined system of Yamamoto and Soundararajan fails to disclose analyzing a pattern of channel change inputs; that the control unit provides the content of the selected channel through the output unit if the calculated degree for the selected channel does not satisfy the predetermined reference and a predetermined pattern of channel change inputs is received by the user input unit, wherein the predetermined pattern of channel change inputs makes possible movement to a channel that does not satisfy the channel preference degree.

However, in an analogous art, Yuen discloses switching between functions in a television receiver by entering a predetermined sequence of keys on a user input unit (col. 6 lines 46-50).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Yamamoto and Soundararajan to allow the entering a key sequence or pattern of key entries, as taught by Yuen, to initiate a function such as switching between a favorite channel list and an entire receivable channel list. This predetermined pattern of inputs would make possible movement to a channel that is not a preferred channel. The rationale for this modification would have been to allow this function to be initiated without providing any additional special function keys, and thereby avoiding cluttering a user input device with extra keys.

**As to claim 2** the combined system of Yamamoto, Soundararajan, and Yuen discloses the apparatus of claim 1, wherein the channel preference information is an accumulation of times while the user stays at each channel (Soundararajan [0036]-[0040]).

**As to claim 4:** Claim 4 calls for changing to the next consecutive channel whose calculated preference degree does not satisfy the predetermined reference (i.e. is not a favorite channel) by inputting a pattern of "channel up - channel down - channel up" or a pattern of "channel down – channel up – channel down." In making selections in the television environment it is typical in the art to enter a key sequence or combination of key entries to activate a desired function. For example, Yuen et al. disclose that sequences of conventional keys can be entered to initiate functions, rather than providing special function keys (col. 6 lines 46-50).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Yamamoto, Soundararajan, and Yuen to include any key sequence or pattern of key entries to activate any function or any program, since applicant has not disclosed that the specific pattern of key sequences solves any stated problem or is for any particular purpose and it appears that the system would operate or perform equally well with any key sequence.

**As to claim 5** the combined system of Yamamoto, Soundararajan, and Yuen disclose the apparatus of claim 4, wherein when the calculated preference degree for

the selected channel does not satisfy the predetermined reference of the selected channel whose content is provided according to the pattern of the channel change inputs, the control unit provides the content of the selected channel through the output unit if the selected channel is present between two channels that have preference degrees satisfying the predetermined reference and that are adjacent to the selected channel (see rejection of claim 4 – a non-favorite channel will be tuned to after the input of a particular sequence of keys. Therefore, if a non-favorite channel is present between two favorite channels and the mode-switching sequence of keys is input, the non-favorite channel will be displayed).

**As to claim 7** combined system of Yamamoto, Soundararajan, and Yuen disclose the apparatus of claim 1, wherein the predetermined pattern of channel change inputs is that 'channel up' or 'channel down' is received as the channel change input a pre-determined number of consecutive times (see similar reasoning in the rejection of claim 4. Pressing a key a predetermined number of consecutive times to perform a given function is analogous to entering a predetermined sequence of keys to perform a function)

It would have been obvious to one of ordinary skill in the art to modify the combined system of Yamamoto, Soundararajan, and Yuen to allow for pressing a key a predetermined number of times to activate any function or any program, since applicant has not disclosed that the specific pattern of key sequences solves any stated problem

or is for any particular purpose and it appears that the system would operate or perform equally well with any key sequence.

**As to claim 8** the combined system of Yamamoto, Soundararajan, and Yuen disclose the apparatus of claim 1, wherein the content is a broadcast program (Soundararajan [0027]).

**As to claims 9-10 and 16** see similar rejections of claims 1-2 and 8, respectively.

**As to claims 12-13 and 15** see similar rejections of claims 4-5 and 7, respectively.

**As to claim 17** the combined system of Yamamoto, Soundararajan, and Yuen discloses the apparatus of claim 1, wherein the control unit calculates the preference degree based on the stored channel preference information (Yamamoto [0043]-[0045]; [0048]-[0050] – the decision of whether or not to tune a channel is made by calculating the preference degree of that channel, which entails referencing the channel map 22).

**As to claim 18** the combined system of Yamamoto, Soundararajan, and Yuen discloses the apparatus of claim 1, wherein the channel is selected with reference to the entire channel list (Yamamoto Fig. 7: s11 and s12; [0038]; [0048]-[0050] - the next channel obtained in step s11 is the next highest (or lowest) channel, as referenced by the channel map 15, the entire channel list).



1. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto, Soundararajan, and Yuen as applied to claim 2 above, and further in view of Wugofski et al., US Pub No 2003/0056216.

**As to claim 3** the combined system of Yamamoto, Soundararajan, and Yuen fail to disclose the apparatus of claim 2, wherein the accumulation is an accumulation of times while the user stays at each channel in each time zone.

However, in an analogous art, Wugofski discloses calculating favorite channels as a function of time that a user watches channels during certain time slots (i.e. time zones) (Paragraph 44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined system of Yamamoto, Soundararajan, and Yuen with the teachings of Wugofski. The rationale for this modification would have been to adapt a favorite channels list to the fact that users watch different channels during different time slots – for example, news channels in the mornings and movie channels in the evenings.

**As to claim 11** see similar rejection of claim 3.

2. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto, Soundararajan, and Yuen as applied to claim 1 above, and further in view of Taylor, US Pub No 2005/0278648.

**Claims 6 and 14** call for changing to the next consecutive channel whose calculated preference degree does not satisfy the predetermined reference (i.e. is not a favorite channel) by inputting 'channel up' or 'channel down' as a channel change input for a predetermined period of time. In making selections in the television environment it is typical in the art to press and hold a key to activate a desired function. For example, Taylor discloses that a key can be pressed and held for a period of time to perform a function different from the function normally assigned to that key (Paragraph 56 - the mute key can be pressed and held to change transparency of an EPG).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Yamamoto, Soundararajan, and Yuen to allow for a key to be pressed and held in order to switch between a "favorite channel list" and an "entire receivable channel list." The rationale for this modification would have been to allow this function to be initiated without providing any additional special function keys, and thereby avoiding cluttering a user input device with extra keys.

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT HANCE whose telephone number is (571)270-5319. The examiner can normally be reached on M-F 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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